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INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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C-O-N-F-I-D-E-N-T-I-A-L 50X1-HUM

COUNTRY	USSR (Gorkiy Oblast, Magadan Oblast)	REPORT	
SUBJECT	1. GAZ Plant and its Automation Section in Gorkiy: 2. SARZ Vehicle Repair Plant in Spornyy:	DATE DISTR.	19 May 1959
		NO. PAGES	1
		REFERENCES	
DATE OF INFO.			50X1-HUM
PLACE & DATE ACQ.			50X1-HUM

SOURCE EVALUATIONS ARE DEFINITIVE. APPRAISAL OF CONTENT IS TENTATIVE.

Two reports on automobile plants Attachment 1 is a sketchy report on the GAZ Plant in Gorkiy which includes information on the layout of the plant, a very superficial sketch of the plant, some information on the automation section with a sketch, as well as brief descriptions of various automatic devices produced in the section, including an "electric magnet" Attachment 2 provides general information on the SARZ Vehicle Repair Plant in Spornyy (N 62-21, E 151-06), Magadan Oblast, descriptions of the various plant buildings, and includes a sketch of the plant layout, a sketch showing the three stamps used by the technical control team to stamp semi-finished, finished, and rejected manufactured parts, and a schematic description of the electric section of the plant. 50X1-HUM

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STATE	x	ARMY	#	x	NAVY	x	AIR	15	FBI		AEC					
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"S.A.R.Z." VEHICLE REPAIR PLANT

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The "S.A.R.Z." (Sporni Auto Repair Zavod) was located in the small town of 50X1-HUM

Spornyy (N 62 - 21, E 151 - 06), Magadan oblast, Yagodnyy rayon, 500 meters (N 62-33, E 149-40)

to the right of the Magadan highway. It was subordinate to the Ministry of Ferrous Colored metals.

PRODUCTS

Delco distributer bodies, generator end covers, housings, and coils, induction coils, reflectors, spare parts, gasoline pumps, carburators and all necessary items for trucks except cylinder blocks, crank shafts, and insulators were manufactured here. These were all about the same sizes as those used in the average ZIL-150 and ZIL-5 trucks.

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Each section had its technical control team.

the team in the electric section; each had three stamps numbered 1, 2, and 3, with which it marked parts it accepted

The Plant did not manufacture or repair military equipment. (see sketch 2)

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(2)

The following is a list of Plant installations and their activities:

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Nº 1 Gasoline and petroleum tanks which belonged to the main supply dump near the plant and were located in a fenced in area up on a hill 500 meters from the road.

Nº 2 Northern road to Magadan

Nº 3 Town reservoir which supplied water from the river to the Plant.

Nº 4 Electric transformer (another smaller one, was located next to the river, supplied the town).

Nº 5 Three-meter high wooden fence supported by concrete columns located three or four meters apart.

Nº 6 Tractor Repair Shop.- A two-story brick structure that had a wooden gabled roof covered with sheet metal and insulated with a mixture of sawdust and ashes.

First floor: Tractor repairs.

Second floor: Storeroom for spare parts and offices of the tractor section.

This building used the following machinery which was in good condition:

Lathes

Planes

Milling machines

Drills

Gas and electric welding torches

Tractors were parked in the garage (Nº 12) until they were picked up. This shop had 150 workers on three shifts; less people worked the night shift.

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Nº 7 Machine Repair Shop.- A one-story seven or eight-meter high brick structure that had a wooden gabled roof covered with sheet metal and insu-

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lated with a mixture of sawdust and ashes. It repaired machinery for plant's use and had many lathes, milling machines, drills, planes, etc. This shop had 250 workers on three shifts.

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Nº 8 Small Smelting Shop.- A one-story 10-meter high brick structure that had a roof of similar construction to those buildings already mentioned. Certain places such as smokestacks, were fitted out with sheets of asbestos. It had five small coke furnaces: four for cast iron and one for cast metal. Each furnace had a small brick smokestack. Products were transported either by electric [redacted] barts of small trucks (if they were large) to the different shops. This shop had 70 or 80 workers.

Nº 9. Small Forge Shop.- was a one-story 10 to 12-meter high structure with the same characteristics as the other buildings. It forged parts and accesories for automobiles, trucks, [redacted] tractors.and used the following machinery:

8 Furnaces: six large, two average size

8 Motor powered drop hammers

This shop had 250 employees.

Nº 10. The Tool Shop.- was a one-story structure [redacted] that had the same characteristics as the other buildings. It made tools, dies, stamps, etc. and had a lot of machinery such as: lathes, milling machines, drills, cutters, [redacted] made in Czecho-Slovakia, [redacted] Russia, [redacted] etc. This shop had 150 workers.

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Nº 11. Road which ran in front of the main gate [redacted] between the main highway and the northern highway.

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Nº 12. Garage for trucks and passenger cars.

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№ 13. Offices and Administration.- was a one-story eight to ten-meter high brick structure that had a roof constructed [redacted] the same [redacted] as those of the other 50X1-HUM buildings.

№ 14. Main Gate

№ 15. Main Plant Building.- was a one-story brick 200 X 50 X 15-meter structure that had a wooden roof covered with sheet metal; it was probably fireproof and had a basement. It repaired automobiles and was divided into the assembly, welding, machine, electric, etc. sections. It made all types of necessary items for trucks, except cylinder blocks, crank shafts, and insulators. There was a great variety of machinery, part of which was foreign manufactured. Products and parts manufactured in this building were stored in the basement.

The Electric Section made Delco distributer bodies, generator end covers, housings, and coils, induction coils, reflectors, spare parts, gasoline pumps, carburators, etc. It had the following machinery:

9 Lathes: one measured 2'5 meters and the rest 1'5 meters.

5 Drills

1 Milling machine

This section had 120 workers on two shifts.

[redacted] 50X1-HUM

№ 16. Guard house

№ 17. Gasoline dump where the fuel was stored in cans and tanks.

№ 18. Garage.- was a one-story 60 X 15-meter log structure, stuccoed inside with [redacted] 50X1-HUM

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straw and mud that had a wooden roof covered with sheet metal. It was used in winter to handle minor repairs on trucks. 50X1-HUM

№ 19. Truck Parking Lot

№ 20. Dump for storing scrap iron until it went to the foundry

№ 21. Laboratory

RAW MATERIALS

The Plant used blocks of special type of cast iron, steel bars and sheets, coke, oxigen, oil, gasoline, etc. these materials were 50X1-HUM all domestic. All products were brought in by truck.

Unused 50X1-HUM

were not stored because they would have been too much of an expenditure.

WATER SUPPLY

Three kilometers south of the plant there was a system which pumped water for a tank (supported by piers 20 meters above the ground) located in the northwest corner of the plant grounds.

Water could be obtained from the river even in winter because the strong current did not permit it to become entirely solid. The Plant heated it in winter by a system of two pipes located underground on either side of the main pipe; houses in town used the same system.

POWER 50X1-HUM

(N 62-40, E 150-52)

Electricity was supplied by a power plant in Taskan.

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The plant had two transformer stations: a large one within the premises and a small one, located 2'5 kilometers south of the plant next to the river.

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Average voltage was 220; however, some machines and motors used 380 volts. Sometimes in winter power was cut off for hours or even a day at a time.

PACKING

Leftover parts were shipped to other plants in boxes of different sizes which had the plant name, number, type, and shipping address stamped on them.

TRANSPORTATION

The Plant had no railroad transportation. ? the nearest

There was a road north to Magadan, a main 8-meter dirt highway which went into town and ran alongside the river, and a 6-meter wide dirt road which ran between the other two on the plant's south side. These were open to traffic all year round and were considered adequate.

The Plant had:

40 Trucks among which were:

2 Seven metric-ton three-axle trucks; one ZIL - 150 and the other ZIL - 5.

1 ZIL - 5 three-ton two-axle truck

3 or 4 Passenger cars used by plant officials

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STORAGE

The plant did not store many tons of scrap iron

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Gasoline and petroleum were stored in 200 liter metal cans located in Building 50X1-HUM

№ 17.

Each section had a number of firemen who had the necessary equipment such as fire extinguishers. The only indooor storage area was located in the basement of Building № 15.

DUCTION FIGURES

50X1-HUM the minimum requirement under the Five Year Plan was a complete overhaul of 150 trucks per month. Material not used that month was stored so that the economists could figure out the work norm according to the items on hand and the orders received from other plants.

The expected production norm was unknown 50X1-HUM

WORKING CONDITIONS

The Plant had a 46-hour work week.

The Machine, Forge, and Assembly Sections worked three 8-hour shifts and the rest of the sections worked two 8-hour shifts; in the latter three or four workers always stayed on to take care of the machines, furnaces, etc. Each shift had a half hour break for lunch.

Workers were granted 18-day vacations plus three days extra for working in the north and 12 more because of the location of the plant in Siberia.

Supervisors and other personnel were granted 48-day vacations which could be taken at any time of the year.

The average wage was 1500 rubles plus a certain percent for years of service. 50X1-HUM

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This was figured on a ten percent basis on every six months but more than

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100 percent could not be collected. Sanitary conditions were good.

URITY

Wooden barracks about 500 meters south of the plant housed personnel and the fire engines. An unknown number of firemen and guards took turns patrolling the area. In Building Nº 16 there was a small security force which controlled entrances and assigned stations to the guards. The rest of the security personnel were stationed at different points inside the premises.

Firemen wore no uniforms and were ordinary workers; they did not carry their firearms but kept them in the barracks. Guards wore soldier's uniforms with red shoulder boards, caps with visors, and high boots; they used either a pistol or a TT revolver using a short nine milimeter shell.

Every person had to have his (stamped) "propusk" at the entrance; a round stamp meant "time of stay unlimited" and a triangular stamp meant "time limited to duration of shift". Only persons with a special mission were allowed in the laboratory; personnel had unlimited access to all other installations.

There were no courses on air attack or air-raid shelters.

ORGANIZATION AND PERSONNEL

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Approximately 5000 persons worked in the plant i.e. workers, technicians, firemen, etc. the majority were specialists.

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Some years ago prisoners or convicts from a work camp worked here but at the time indicated (in report) only native Russians were employed. 50X1-HUM

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DEFICIENCIES, IMPROVEMENTS, AND PROMOTION OF PRODUCTION

No special effort had to be made to fulfill the norm dictated by the Five Year Plan. it was possible to convert this plant to wartime needs but know how it could be done nor how long it would take. 50X1-HUM

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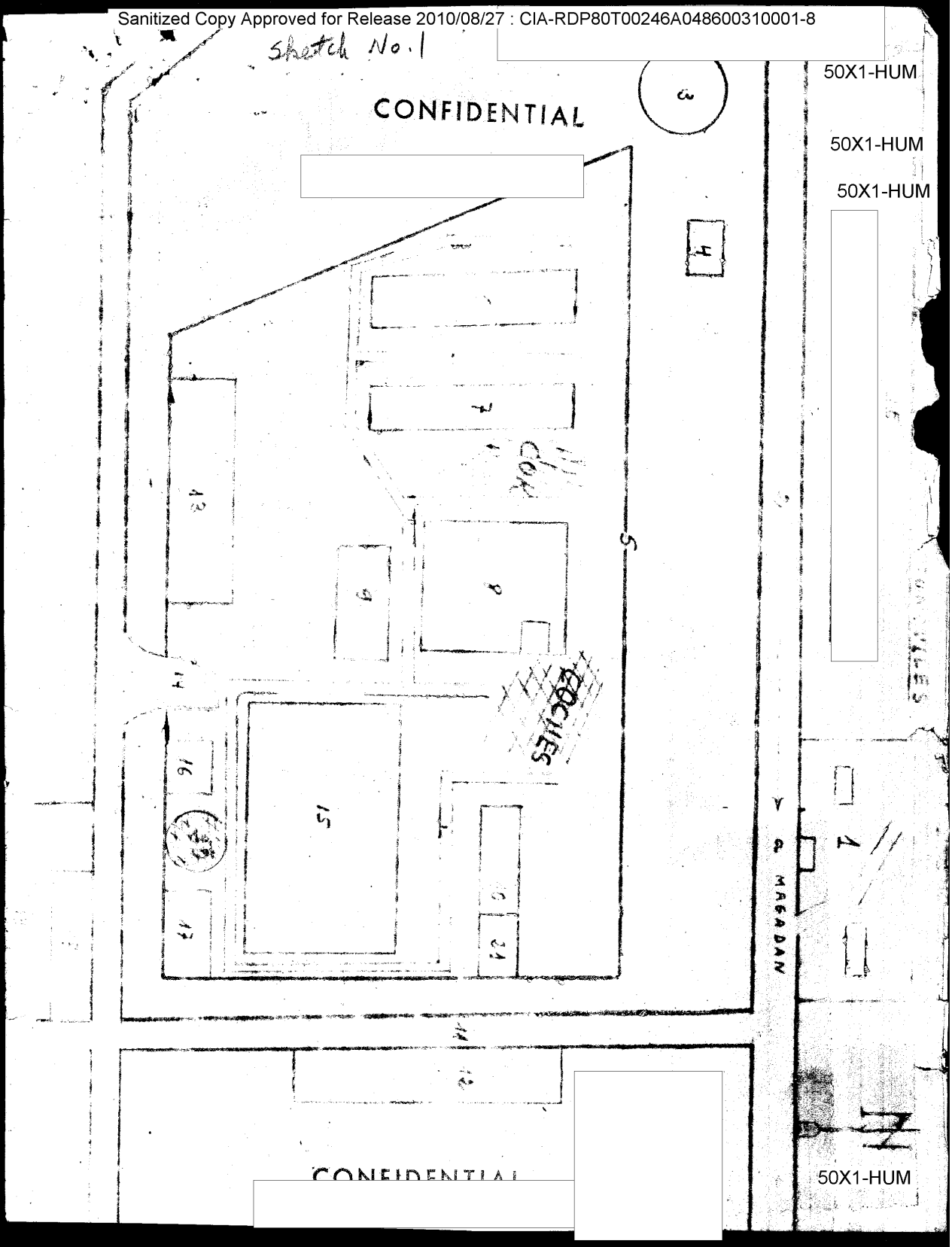

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Sketch No. 2

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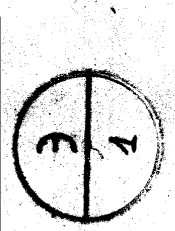

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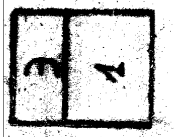

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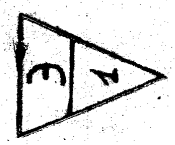

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LEGEND TO SKETCH OF ORGANIZATION IN THE ELECTRIC SECTION

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1. Chief Engineer

2. Work Distribution Engineer

3. Chief Master

4. Two masters who received orders from the above.

5. Two masters who made the preparations

6. Lathes

7. Fitters

8. Fitting of attachments

9. Coil winders

10. Chief of the Technical Control Organization

11. Master of the Technical Control Organization

12. Two assistants to the master of the Technical Control Organization

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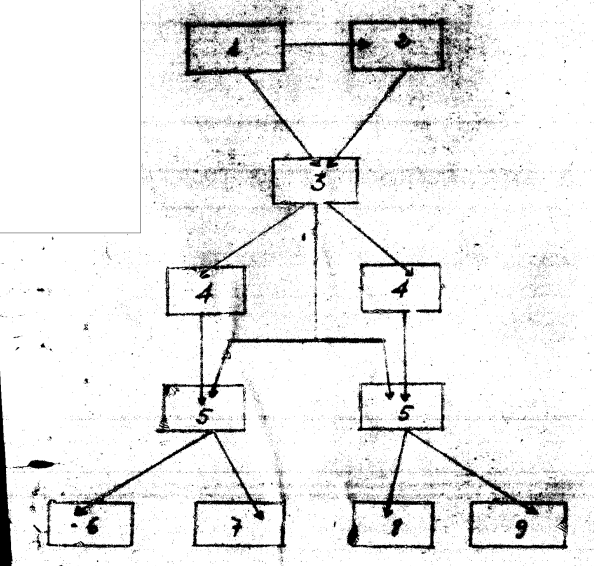

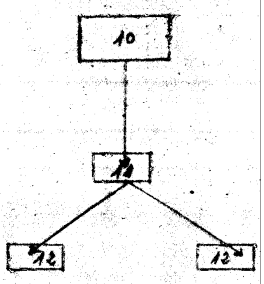

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GAZ IMENI MOLOTOVA PLANT AND ITS AUTOMATION SECTION

1. The plant was known as Gosudarstvennyy avtomobilnyy zavod, GAZ-imeni Molotova. this plant subordinate to the Ministry of Automobile Production Industry (Ministerstvo avtomobilnogo proizvodstva).[1] The plant was located in Gorkiy (N 56-20, E 44-00), somewhere east of the Oka River. Exact location of the plant and the street or streets in the vicinity were unknown

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4. The main activity of the Wood-Working Shop involved preparation and finishing of boards for wooden components of trucks and cars. No other production or activities of this shop were known following power-operated production equipment observed at this workshop:

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4 or 5 electrical saws	make or origin unknown
5 or 6 band saws	" " "
5 or 6 circular saws	" " "
4 planning lathes	
4 drilling (boring) lathes	make unknown
1 or 2 automatic hammer lathes	believed to be of Soviet origin
dyeing, painting, repairing and drying equipment	

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its own transformer. The type and source of fuel used were unknown. He provided no details on smokestacks. He had observed the power lines but could provide no details. Supply of electricity was adequate with few breakdowns experienced. Voltage used was believed to be 220. Main heat, steam, and power supply installations were believed to be located outside of the plant and serviced the entire area, including the Sotsialisticheskiy gorod (Sotsgorod).

6. the Wood-Working Shop operated on an eight-hour daily shift. 50X1-HUM

7. The security system or measures employed at the plant were unknown the entrance pass was always retained by the workers. He believed that workers of each shop required different markings on their passes for entry to their work sites. 50X1-HUM 50X1-HUM

8.

9. the Automation Section already in existence was still in process of organization and development. the approximate location of the section (see sketch on page 6.) This section consisted of two design groups, the electro-circuit designers and mechanical schemes designers. The electro-circuit design group consisted of seven or eight designers the mechanical schemes design group consisted of 18 to 20 Soviets. This section worked during one eight-hour daily shift only. 50X1-HUM

10. group of the electro-circuit designers experimented on the design of circuits for a lifting device, called "tolkatel", required for an electric cutting ("nozhnitsy") lathe. 50X1-HUM the size of the metal to be cut two meters wide and one or two centimeters thick. The metal plates were to be cut into halves. During the cutting process, the automatic device worked on by the design group would lift each separate plate and place it in position for consecutive cutting. two or three Soviets worked jointly on this device which was completed in four to six weeks and turned over to the plant's chief engineer. 50X1-HUM

11. The other automatic device involved an automatic placing or picking machine which he termed "ruka". This device, in the form of giant pincers, was designed as a grip (crank handle) able to lift or place such small items as nuts, bolts, or similar objects. The final use of this device was unknown practical in the assembly line of automobile motors. Completion of the design for this device required from six to eight weeks. 50X1-HUM 50X1-HUM

the electric circuits worked on by the design group were to be used for automation of various production lathes at the Molotov plant 50X1-HUM

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12. electro-magnet (elektro magnit). This device was meant for automatic separation of very thin and circular metal plates from each other during a lifting process. 50X1-HUM The plates, of various dimensions, pressed tightly together, apparently through packing, would be separated by electro-magnetic means. This device was not completed 50X1-HUM

13. 

GAZ Plant Site Layout

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14. Following is the legend to Sketch No. 1 on page 5, which gives the Gaz Plant site layout.

Point 1 Main personnel entrance.

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Point 2 Road to reach the Wood-Working Tsekh

Point 3 Wood-Working and Finishing Shop.

Point 4 Supply area for wood and other implements belonging to the Wood-Working Shop.

Point 5 Three-story, brick building, on the 3rd floor of which the Automation Section was located. 50X1-HUM

Point 6 Instrumentation Workshop.

15. Following is the legend to sketch no. 2 on page 6, giving the Automation Section's layout.

Point 1 Stairs and landing, third floor.

Point 2 Office of the electro-designers.

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Point 3 Office of the mechanical schemes designers.

Point 4 Archives.

Point 5 Club room.

Point 6 Dining room and kitchen. each separate section or workshop had its own dining room facilities

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Comments:

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1. From 1954 to 1955, this Ministry was called the Ministry of Automobile, Tractor, and Agricultural Machine Building. Between 1955 and 1956 it was known as the Ministry of Automobile Industry.

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2.

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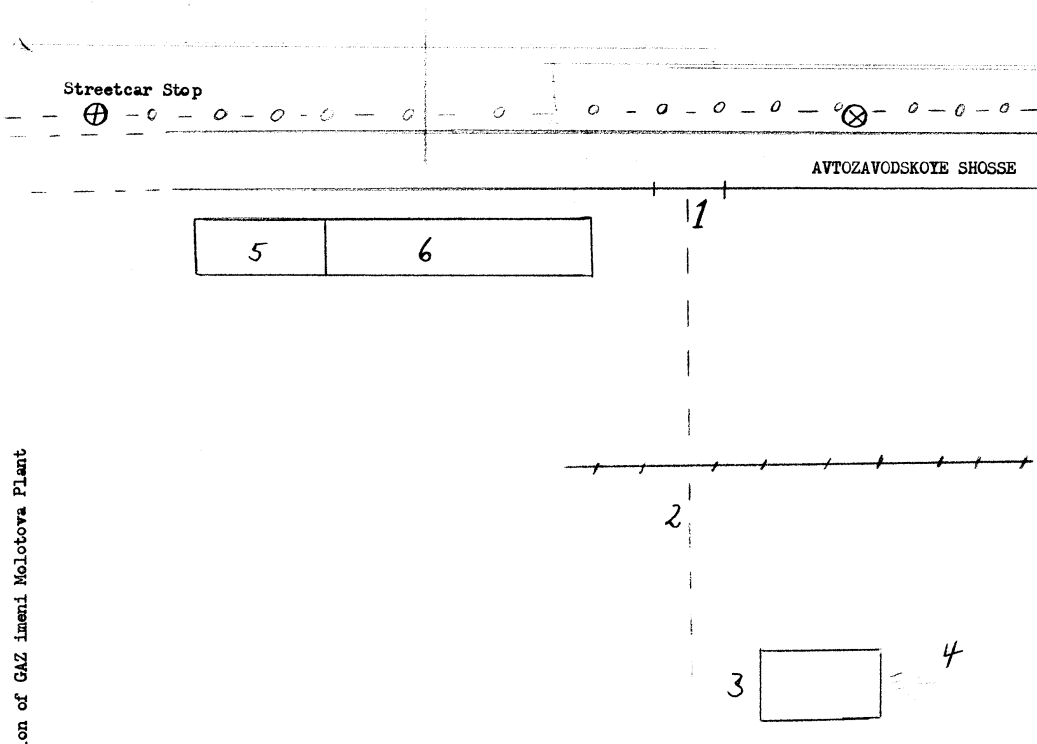
Location of GAZ imeni Molotova Plant



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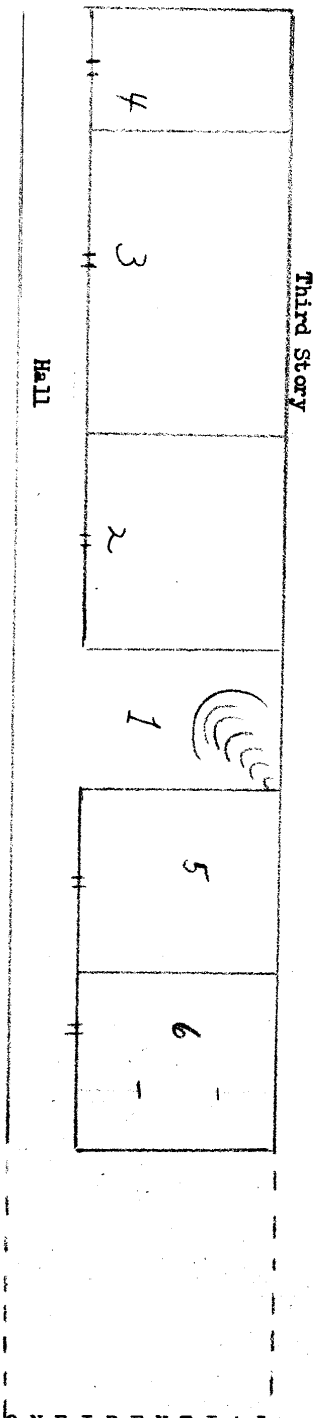
Automation Section Layout at GAZ im. Molotova Plant



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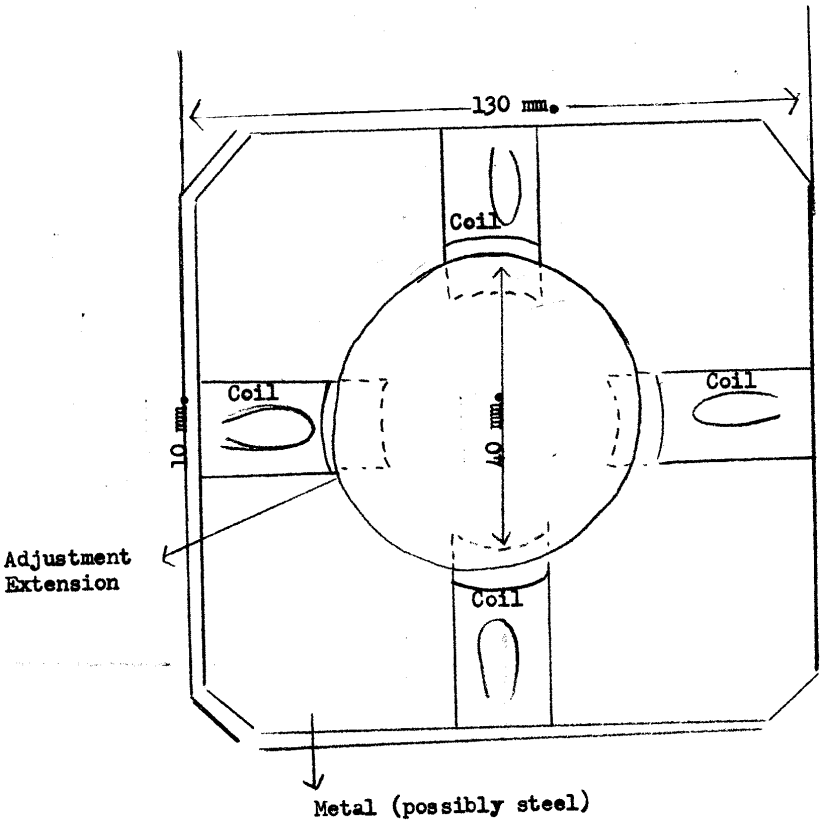
Electro-Magnet Device [redacted] at GAZ imeni Molotova Plant 50X1-HUM



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